

Before the

FEDERAL COMMUNICATIONS COMMISSION

Washington, D.C. 20554

In the matter of

Carrier Current Systems including Broadband over)
Power Line Systems) ET Docket No. 03-104

Amendment of Part 15 regarding new requirements)
and measurement guidelines for Access Broadband)
over Power Line Systems) ET Docket No. 04-37

June 21, 2004

REPLY COMMENTS of ZONE INNOVATIONS

Introduction

The writer Walt Evanyk, is an experienced Broadband Engineer in RF, Broadband Networks, Defense Electronics, EWCM, EMI, EMC, Wireless IC Design and RFID. The Writer chairs the Communications Sub Committees for both the DFW Homeland Security Alliance and HOMESTARRS and is a Technical Specialist for the National RFID Institute. He has served on many International Standards Committees such as OFDM, 802.xxx, ATM, T1E1, OSIG, DAVIC and has over forty patents.

To the Commission

General

There exist concrete evidence both nationally and internationally of unacceptable radiation and interference from the aerial/buried lines and the nodes within any BPL existing deployment. In reviewing the latest reflector web sites it seems Chairman Powell, Commissioner Adelstein and any others stating interference doesn't happen, but if it does it will be easily and willingly mitigated could make a field trip to Cedar Rapids (Alliant Energy's BPL) and simply observe. I know if I was to endorse a technology for whatever reason I would insure that I did every thing possible to review all inputs for such a critically important decision.

Since, most if not all BPL supporters are using HF, even the current rules could allow the radiation of enough RF energy to cause significant signal and interference many miles under favorable propagation conditions. Why push HF instead of Microwave. Why not ride the economics of the WIFI technologies. These costs are exponentially reducing and propagation (the Laws of Physics) is now in every ones favor.

Again, there seems to be the ole “wiggle and weasel” by taking advantage of individual interpretation of the Commission’s intentional broad wording in the rules, “with regard to ‘harmful interference’ that any interference that may still exist in a particular selected trial site is not ‘harmful’”. The initial “NTIA Phase One” report was very well balanced in content and accuracy, but the recent words from their Michael Gallagher is quite extraordinary which in my opinion state there is no problem that can not be managed, it is over blown, mis-understood and oh by the way though there are indications that every measure possible will be taken that critical military and government services will be protected from and interference (“To fulfill special protection requirements the NTIA will suggest minimal coordination areas where a specified authority would coordinate all planned BPL deployment plus excluded bands and exclusion zones”). Well, there is or isn’t a problem. You can not swing both ways. Why the sudden seemingly reversal. He also states a recommendation of “voluntary coordination” with respect to other radio operations plus “mandatory Access BPL power control, frequency agility and shut-off capabilities” to reduce interference risk and to expedite interference mitigation. Our hat is off on this comment although now we’re back to the proposed solution by the FCC in that for the first time the commission is seemingly placing the burden of proving there is interference on the interfered versus the real culprit. I was always of the belief one of the commissions primary responsibilities was to protect the public air waves. There must be clear responsibilities and penalties for non compliance and lack of action.

Reflecting on Homeland Security it is entirely practical and probably that any public service, utility, agency, bank, hospital, emergency service or military operation utilizing BPL could be crippled or compromised either by accident or via an organized orchestrated effort . These are serious times, thus solutions and technologies must be thoroughly tested and evaluated in real world environments, applications and meet stringent requirements. Any and all technology must be evaluated by numerous neutral parties and organizations.

To restate, there is demonstrated evidence of inadequate or inability of the utilities to address interferences to licensed services, thus there must be formal clear and enforced incentives from the FCC for the utilities to abide by the rules and regulations such as timely penalties for non conformance.

Safe guards of “Interference” and “Mitigation” efforts not being crossed subsidized between “Regulated” and “Unregulated Identities” must be in place. One can not simply say this is a “State” or “PUC” issue. A federal identity (the FCC) is writing the rules and acting as the engineer in a locomotive speeding down the track. This has all the implications of a possible unfair and unbalanced playing field in spite of one of the FCC’ stated goals of providing a competitive scenario.

Data on each and every CPE, Unique Identity, Amplifier, Terminal, Periodic Power Grid Sweep, Filed Complaint and its resolution must be easily accessed by the Public and officially filed and maintained by the utility and the Commission.

Respectfully,

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